



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF AIR POLLUTION CONTROL

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Nashville, TN 37243  
(615) 532-0554 Voice or (615) 532-0614 FAX

August 3, 2020

Certified Article Number

9414 7266 9904 2154 5146 67

SENDER'S RECORD

Mr. Stephen Scott, President  
Volunteer Environmental Services  
549 East Pass Road, STE F  
Gulfport, MS 39507

Re: Construction Permit Application  
Covington Waste Water Treatment Plant  
298 Witherington Drive, Covington, TN  
Emission Source Reference No.84-0124-01/Permit No. 977924

Dear Mr. Scott:

On January 13, 2020, Volunteer Environmental Services applied for a construction permit to utilize medical waste and (at the time) pharmaceuticals as feed stock to the existing gasification/thermal oxidizer unit that currently operates under state air permit #072620. Pharmaceuticals were removed as a potential feedstock to the unit in a subsequent application revision dated February 24, 2020. In letters dated January 29, 2020 and March 24, 2020, the Division declared that your construction permit application for the modification to the existing feed stock for the Covington Waste Water Treatment Plant Gasification/Thermal Oxidizer unit was incomplete. Item 4. of the March 24, 2020 letter reads as follows:

The brief regulatory analysis provided in the additional information received February 24, 2020, does not substantively demonstrate that the existing unit at-Covington would be exempt from 40 CFR 63, Subpart Ec (Hospital/Medical/Infectious Waste Incinerators) under the proposed conditions. Determinations regarding the applicability of the exemption at 40 CFR 60.50c(f) for "any pyrolysis unit" have been made on a case-by-case basis by the Environmental Protection Agency (EPA). The information contained in your application suggests that the modification to the method of operation of the unit as proposed would be subject to 40 CFR 60, Subpart Ec. As such, the application should be updated to address compliance with 40 CFR 60, Subpart Ec, or provide a determination in writing from EPA that the exemption at 40 CFR 60.50c(f) is valid for the unit under the conditions for which you propose the unit to be operated.

In response to Division concerns relating to the above listed potential federal regulatory applicability issue, Volunteer Environmental Services requested a determination from USEPA Region 4 concerning the applicability of Subpart Ec to the Covington facility. The Division is in receipt of the USEPA Region 4 response dated July 13, 2020. In that response the USEPA stated that in order to make an applicability determination, additional information was needed about the process design and system operating data to determine if the unit is operating as a gasifier, pyrolysis unit, or incinerator. The USEPA response went on

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to quote Volunteer Environmental Services statement that some of the information requested was not available unless a trial burn of medical waste was conducted. The USEPA response further stated that any allowance for a trial burn or pilot testing would lie with the regulatory authority of this Division.

In regard to conducting such a trial burn, the Division must first state that neither the Tennessee Air Pollution Control Regulations nor the Tennessee Air Quality Act provides any specific language addressing such a proposed trial burn. Condition 7 of the current facility permit #072620 states that only chipped wood biomass and municipal sludge shall be used as fuel for this source with natural gas listed as alternate fuel only. Since your January 13, 2020 construction permit application is considered incomplete at this time, authorization for a trial burn cannot be accomplished through the pending construction permitting action.

However, there are two options open to Volunteer Environmental Services to obtain legal permission to conduct such a trial burn. The first would be for the City of Covington to request an amendment to the existing permit to allow for a short-term trial burn utilizing medical waste as feed stock. The second option to obtain legal permission to conduct such a trial burn would be for the City of Covington to petition the Tennessee Air Pollution Control Board for a Variance pursuant to the provisions of the Tennessee Code: Title 68: Chapter 201 (Air Quality Act), specifically at 68-201-118.

Conditions of either a permit amendment or a Variance will contain specifics concerning performance testing to be conducted during such a trial burn and a time limitation for the trial burn. Federal regulations under 40 CFR 63, Subpart EEE allow for facility operation of up to 720 hours under an approved test plan for preparations and for conducting performance testing. Although the City of Covington unit is not subject to this regulation, the Division will use this time frame as the maximum limit for a requested short-term trial burn. As a part of the request for either a permit amendment or a Variance, a detailed description of how the unit will be operated during the trial burn must be submitted. This should include, at a minimum, how the unit will be brought back into operation, how medical waste will be fed to the unit, the rates at which each feed stock, including medical waste, will be fed to the unit during each phase or aspect of the trial burn, how long it will take for the unit to reach operating conditions that would be considered normal operation of the unit while processing medical waste, and the total amount of time, in hours or days, that will be necessary from the start of the trial burn until completion of performance testing. This information will be used to determine the permissible length and operations of the unit during the trial burn. Be advised that upon completion of the performance testing to be conducted as a part of the trial burn, use of medical waste as a feed stock shall cease until the Division approves the performance testing and a permit modification is issued to accommodate medical waste as a feed stock.

Given the potential applicability of 40 CFR 60, Subpart Ec to the facility, the Division will require that performance testing be conducted for the pollutants listed and using the test methods specified in Table 1B to Subpart Ec of Part 60 with the exception of testing for dioxin/furan compounds during the trial burn. A copy of this table is included as an attachment to this letter. The submittal of a performance test protocol must be a part of any permit amendment application or Variance request to conduct a trial burn. In addition to addressing the performance testing required in Table 1B to Subpart Ec of Part 60, the test protocol must also address the issues presented by USEPA Region 4 in its July 13, 2020 letter. A copy of standardized Division requirements for the content of a test protocol is also enclosed for your reference. Be advised that, based on the results of the April 15, 2014 performance test at the facility, compliance with the particulate limitation set forth in Subpart Ec was not demonstrated while the source was utilizing wood biomass and municipal sludge as feed stock.

If you have any questions, issues, or need further information concerning the permitting related issues addressed above including those relating to the proposed trial burn, please contact either Mr. John Fuss at


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(615) 532-0535 or via e-mail at [John.Fuss@tn.gov](mailto:John.Fuss@tn.gov), or Ms. Julie Verissimo at (615) 532-0582 or via e-mail at [Julie.Verissimo@tn.gov](mailto:Julie.Verissimo@tn.gov). If you have any questions, issues, or need further information concerning the contents of the trial burn test protocol, please contact Mr. Bryan Parker at (615) 687-7037 or via e-mail at [Bryan.Parker@tn.gov](mailto:Bryan.Parker@tn.gov). If you find that a meeting would be beneficial to discuss any aspect(s) of the necessary requirements and expectations to be fulfilled in order to conduct a proposed trial burn, please contact Mr. John Fuss at (615) 532-0535 or via e-mail at [John.Fuss@tn.gov](mailto:John.Fuss@tn.gov) to coordinate a time and place.

Finally, the proposed utilization of medical waste as feed stock to the existing gasification/thermal oxidizer unit may make the unit subject to Tenn. Comp. R. & Regs. 1200-03-25 (Standards for Infectious Waste Incinerators). This State regulation is completely independent of and has different applicability criteria from 40 CFR 60, Subpart Ec. The Division will evaluate the additional information to be provided in response to the January 29, 2020 and March 24, 2020 incomplete application letters and the July 13, 2020 USEPA letter to determine the potential applicability of this State regulation to the Covington Waste Water Treatment Plant Gasification/Thermal Oxidizer unit.

If you have any questions, issues, or need further information concerning the potential applicability of Tenn. Comp. R. & Regs. 1200-03-25 to the facility, please contact Ms. Lacey Hardin at (615) 532-0545 or via e-mail at [Lacey.Hardin@tn.gov](mailto:Lacey.Hardin@tn.gov).

Sincerely,



James P. Johnston, P.E.  
Deputy Director  
Permitting & Regulatory Development

Attachments – 2

c: USEPA Region 4

## TENNESSEE DIVISION OF AIR POLLUTION CONTROL COMPLIANCE VALIDATION

### Protocol and Test Report Requirements

1. Introduction: Include information on the type of facility being tested, the purpose of the test (permit condition, board order, new construction, etc.), and the standards which apply. Also list the personnel involved in the test.
2. Process Description with simple flow diagram.
3. Process Operation: The process operation shall be in accordance with the pretest agreement signed by both the company and the TAPCD Compliance Validation Program or otherwise be acceptable to the TAPCD Engineering Program.
4. Test data to include:
  - A. Summary of Results, to include at a minimum:
    - a. Stack diameter
    - b. Stack gas velocity
    - c. Stack gas flowrate (ACFM & SCFM)
    - d. Emissions, listed in pounds per hour and in the units of the standard cubic foot (70 °F, 1 atm., dry gas); lb/MMBTU heat input; lb/100 ab charged; grains/dry standard cubic foot, corrected to 12% Co<sub>2</sub>; etc.
    - e. Percent isokinetic of test (where applicable)
  - B. Sample Calculations
  - C. Description of Sampling Procedures and Laboratory Procedure
  - D. Legible copy of Field Data Sheets
  - E. Legible Copy of Lab Data Sheets
  - F. Schematic Diagram of Sampling Site showing distances to upstream and downstream disturbances.
  - G. Sample Chain of Custody Documentation
  - H. Identification of regulation applicable to source (If both Federal and State regulations apply, so state)
  - I. Legible Field Orsat Data sheets (where applicable)
5. Calibration Data: include the most recent data and results of calibration for all equipment used in the test. At a minimum, include the following:
  - A. Pretest and post-test metering system calibration.
  - B. Pitot calibration: If geometrical considerations are used in obtaining pitot coefficient (C<sub>p</sub>), include a copy of the data sheet used in verifying the geometry.
  - C. Calibrations on all the temperature measuring devices (thermometers, thermocouples, etc.) used in the test.
  - D. Calibration data on nozzles used in the test (where applicable).
6. Visible Emissions Evaluation conducted during the test, if available.
7. Copy of strip chart from opacity monitor, if available, with test period denoted on chart as "start", "stop", "hold", etc.
8. Copy of observer's evaluation or copy of letter waiving requirement that an observer be present.
9. Reports shall be submitted electronically to [Air.Pollution.Control@tn.gov](mailto:Air.Pollution.Control@tn.gov)

## ELECTRONIC CODE OF FEDERAL REGULATIONS

e-CFR data is current as of July 30, 2020

Title 40 → Chapter I → Subchapter C → Part 60 → Subpart Ec → Appendix

## Title 40: Protection of Environment

## PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

## Subpart Ec—Standards of Performance for New Stationary Sources:

## Hospital/Medical/Infectious Waste Incinerators

TABLE 1B TO SUBPART Ec OF PART 60—EMISSIONS LIMITS FOR SMALL, MEDIUM, AND LARGE HMIWI AT AFFECTED FACILITIES AS DEFINED IN §60.50C(a)(3) AND (4)

Pollutant	Units (7 percent oxygen, dry basis)	Emissions limits			Averaging time <sup>1</sup>	Method for demonstrating compliance <sup>2</sup>
		HMIWI size	Small	Medium	Large	
Particulate matter	Milligrams per dry standard cubic meter (grains per dry standard cubic foot)	55 (0.029)	22 (0.0095)	18 (0.0080)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 5 of appendix A-3 of part 60, or EPA Reference Method M 26A or 28 of appendix A- 8 of part 60.
Carbon monoxide	Parts per million by volume	20	1.8	11	3-run average (1-hour minimum sample time per run)	EPA Reference Method 10 or 10B of appendix A-4 of part 60.
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)	16 (7.9) or 0.013 (0.0057)	0.47 (0.21) or 0.035 (0.015)	8.3 (4.1) or 0.035 (0.015)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of appendix A-7 of part 60.
Hydrogen chloride	Parts per million by volume	15	7.7	5.1	3-run average (1-hour minimum sample time per run)	EPA Reference Method 26 or 26A of appendix A-8 of part 60.
Sulfur dioxide	Parts per million by volume	1.4	1.4	8.1	3-run average (1-hour minimum sample time per run)	EPA Reference Method 6 or 6C of appendix A-4 of part 60.
Nitrogen oxides	Parts per million by volume	67	67	140	3-run average (1-hour minimum sample time per run)	EPA Reference Method 7 or 7E of appendix A-4 of part 60.
Lead	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	0.31 (0.14)	0.018 (0.0079)	0.00069 (0.00030)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of part 60.
Cadmium	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	0.017 (0.0074)	0.0098 (0.0043)	0.00013 (0.000057)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of part 60.
Mercury	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	0.014 (0.0061)	0.0035 (0.0015)	0.0013 (0.00057)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of part 60.

<sup>1</sup>Except as allowed under §60.56c(c) for HMIWI equipped with CEMS.<sup>2</sup>Does not include CEMS and approved alternative non-EPA test methods allowed under §60.56c(b).

[74 FR 51414, Oct. 6, 2009, as amended at 76 FR 18414, Apr. 4, 2011]

Need assistance?